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THE VITAL STATISTICS

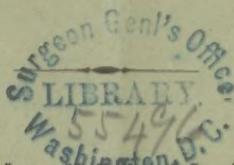
— OF —

NEW ORLEANS,

From 1769 to 1874.

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ORIGINAL COMMUNICATIONS.

ARTICLE I. *The Vital Statistics of New Orleans, from 1769 to 1874.* By STANFORD E. CHAILLÉ, A.M., M.D., Professor of Physiology and Pathological Anatomy, Medical Department, University of Louisiana.

EXPLANATORY.

In the January No., 1870, of the *N. O. Journal of Medicine*, the writer published Article I. (of pp. 67), on the "Vital Statistics of New Orleans from 1769 to 1869, and more especially for the five years [preceding the war] 1856-1860;" and in the July No., 1870, of the same Journal, Article II. (of pp. 36), on the "Yellow Fever and Vital Statistics of New Orleans during its military occupation, the four years 1862-5," was published. The object of the present article is to complete the subject by this the third and last article on the Vital Statistics of New Orleans, for especially the five years succeeding the war, 1866-70, and thus to fulfil the purpose expressed in the two preceding articles. The postponement of its publication to the present time has been due chiefly to delay in procuring the necessary data from the U. S. Census of 1870, and to the non-existence of any medical journal in this city during the years 1871 and 1872.

While this article presents the statistics of the five years,

1866-'70, it is also, in large part, a resumé of the two preceding ones, and therefore treats of the Vital Statistics of New Orleans from its earliest statistical records (1769) to the present time, but more particularly for the fifteen years, 1856-1870. It is believed that the statistics of no period in the history of this city are likely to prove of such advantage for reference, as of those fifteen years which show the contrast between series of years, which were stamped with such momentous political changes. As one result of the war, the records of these facts were fast disappearing, and one object of these articles was to rescue them from oblivion for the instruction of the future. The labor undertaken is now gladly terminated, and, for the years subsequent to those herein reported, the student of statistics will find, in the Reports of the Board of Health, which, published since 1869, have annually improved in value, all of the necessary facts which are procurable.

This article is divisible into three chief parts; the first part states facts as to the population, the second as to mortality, and the third gives eight statistical tables of figures derived from the official reports. This last part is of course the most important, for it is the source of most of the facts and conclusions presented in the two other parts. Frequent use is made of such figures as 1866-70, for the purpose of designating the five years, therefore in all such cases both years given are included. The fifteen years 1856-70 are frequently referred to as "the thirteen years 1856-70;" in all such cases the two years 1861 and 1862 are to be excluded, for the reason that there are no complete official reports of these years, and that the facts referred to, being incompletely reported for these years, are therefore excluded. Such data as are given as to these two years can be relied on. In order to accord with the United States Census, the term "colored" is often employed as synonymous with what is designated by the Board of Health "Blacks and Mulattos," and by people of education generally negroes or Africans.

In concluding this Introductory, particular attention is called to the fact, that if any one practical lesson is specially taught by the study of the Vital Statistics of New Orleans, this lesson is--that no one thing is so essential, for the rectification of the sanitary evils of New Orleans, as its proper drainage from the river to the lake. To secure this, no pecuniary sacrifice would be too great, provided that the necessary funds could be rightly ex-

pended, and not diverted into the repleted pockets of rapacious officials.

POPULATION, &c.

Jean Baptiste de Bienville, Commandant General of the King of France for the *Colony* of Louisiana, founded the city of New Orleans in 1718. Its site was inundated in 1719. In 1723 it became instead of Mobile the capital of Louisiana, and then consisted of about one hundred log cabins. In 1728 it had become an important commercial port. In 1762 Louisiana was ceded by France to Spain, but the Spanish Governor, O'Reilly, did not take possession until August 18th, 1769. In this year a census of the population was taken for the first time: it numbered 3190; of these, 1225 were slaves, and there were 468 houses. In 1775, as also in 1785, the population was augmented by Acadians (refugees of French descent) from British America, and in 1791 by refugees from Jamaica. In 1797 the population was 8056. Spain, in 1800, ceded Louisiana back to France, which did not take possession until Nov. 30th, 1803, and retained it only twenty days; for on April 30th, 1803, France had ceded Louisiana to the United States, which took possession on Dec. 20th, 1803. March, 1804, the United States divided the Province of Louisiana into two territories, and designated the portion now known as Louisiana the "Territory of Orleans," which was admitted into the Union as the State of Louisiana on April 8th, 1812. In this year (January 10th) the first steamboat arrived at New Orleans, and the second war with Great Britain began, ending January 8th, 1815, with the Battle of New Orleans.

Incorporated as a city in 1805, the population in 1810 was 17,242, which in 1850 had increased to 116,375. In 1852, the Fourth District (formerly known as Lafayette), with a population in 1850 of 14,190, was annexed to New Orleans. This population of 130,565 in 1850 had increased in 1860 to 168,675, and in 1870 to *only* 173,763. In 1870 the Fifth District (know as Algiers, or "Orleans Parish, right bank"), with a population of 6819, and the Sixth District (known as Jefferson City), with a population of 10,836, were annexed to New Orleans, and increased the 173,763 of the old city to the 191,418 given in the United States Census. Act 71, March 23d, 1874, added a Seventh District by annexing Carrollton, with its population in 1870 of 6495. Thus the New

Orleans of 1874 had in 1870 a total population of 197,913, which now probably amounts to from 210,000 to 215,000.

These various annexations have been sources of some statistical confusion. To avoid this, it must be remembered that New Orleans, as it was bounded from 1852 to 1870, contained 168,675 population in 1860, and only 173,763 in 1870; but that, for the mortality statistics, Jefferson City, with its population of 10,836, is considered as having been a part of New Orleans. There is thus given, as a basis for the *pro rata* estimates of the population from 1860 to 1870 a total in 1860 of 168,675, and in 1870 of 184,599. These are the only figures which can be properly used in calculations of the death-rate, and if not remembered, the estimates of population, as given in the Tables, &c., will give rise to useless discussion.

As to the estimate of the civil population during the four war-years, 1862-5, the following facts deserve consideration. Jan. 26th, 1861, Louisiana seceded from the United States, April 25th, 1862, it was captured by the United States Navy, and on May 1st, 1862, it was taken possession of by the United States Army. Between these dates the population was much diminished by thousands of citizens who became Confederate soldiers, and by thousands of refugees. From April 9th to May 26th, 1865, all of the Confederates surrendered, and New Orleans was repleted to a greater extent than ever before by its returning citizens, and by the freedmen who then flocked to it in large numbers. Thus it is certain that in 1862 its civil population was at its minimum, and in 1865 at its maximum. The general opinion of intelligent citizens who remained in New Orleans is that the population was much diminished from May, 1862, to May, 1865. Dr. Harris, in July, 1865, estimated that *then* "the total population, including the permanent or the transient military forces, was little less than 200,000." Dr. J. J. Woodward, U. S. A. Surgeon General's Office, writes: "As to the civil population of New Orleans during the period referred to, I have myself no doubt at all that the army of camp followers, sutlers, traders, etc., far exceeded the number of fugitives, and should not be surprised if, in fact, the civil population were shown to be really larger than before the war, but I know of no reliable reports bearing on the case." Table No. 5 demonstrates a fact inconsistent with Dr. Woodward's opinion, for it shows that the most marked diminution in the deaths, during this time, occurred among those between the ages

of twenty and forty, and therefore in that class especially which had abandoned the city, and which would have been replaced by those from twenty to forty years of age, if replaced by Dr. Woodward's "army of camp followers, sutlers, traders, etc." For these reasons, it is confidently believed that the estimates of the civil population during the years 1862-3-4-5, as given in Table No. 1, &c., are over rather than under estimates, and that they are approximations to the true figures, as favorable to the death-rate as the facts and official reports permit.

These approximative estimates, even if they largely underrate the true population, serve the interesting purpose of correcting a misrepresentation, which, originating in 1862, has gained such currency that it has become a part of the popular history of the war, as written north of the Potomac. It is asserted with great confidence, that the United States military authorities in New Orleans did, by an efficient sanitary police, etc., not only protect it from yellow fever (an assertion which the facts fail to prove, as will be shown farther on), but also greatly improved its general health and notably diminished its death-rate. Now, the only official reports of the mortality of 1862-5 were furnished me by the courtesy of Surgeon General Barnes and Dr. J. J. Woodward, U. S. A., were first published in my article of July, 1870, and are now republished in the various tables of this article. These, the only official figures, prove beyond question that the death-rate of the civil population of New Orleans was, during its military occupation, absolutely increased rather than diminished, and this to a notable extent, if these non-epidemic war years be compared, as in fairness should be done, with those non-epidemic years which immediately preceded and succeeded the war. The correctness of these conclusions is established by additional facts, which fortunately prohibit the usual quibbles (so popular when death-rates are discussed) about the estimates of population. For no one can claim that during the military occupation of New Orleans, its population of children under 10 years, of men over 70 years, and of females was increased, and yet there was an increased mortality of these three classes of the population. Staid truth from the official figures has in this case, as in so many others, a tedious chase to catch the flying falsehood of vain-glorious opinion.

In New Orleans, as in other cities, there has always been dissatisfaction with the census, and if popular opinion is to be ac-

cepted, then the population was very much under-estimated in 1870, as also always before; and therefore the death-rate necessarily becomes greatly overrated. Of course, no one pretends that the official figures are absolutely correct, nor denies that the actual population may be greater than enumerated. But for the calculation of the death-rate and all other practical questions, it is of little consequence if the enumeration be not correct, even if it furnishes an under-estimate; for the question of preëminent importance is, whether the enumeration for New Orleans is as correct as for other cities of the United States; or, in other words, whether the census of New Orleans is *comparatively correct*.

The strongest argument against the United States Census is that it has always been taken during the summer, when its population was at its minimum. This argument has not the strength popularly assigned it: for, in the first place, the census of all other cities is also taken in the summer, and therefore is *comparatively correct* for New Orleans, except in so far as it may have a larger number of summer absentees than other cities; and in the second place, the apparent reasonableness of this objection is invalidated by the method of taking the census. By the law, "Assistant Marshals duly qualified" are required to certify on oath to the following, among other things; that they have visited every house, and have enumerated the name of "every person whose *usual* place of abode," "including the names of those *temporarily absent*," was in said house, or family; and in addition, every census taker is allowed "as compensation for his services, after the rate of two cents for each person enumerated." These facts fail entirely to justify the assertions that a summer census is necessarily an under-estimate, and that the census of New Orleans is *comparatively incorrect*.

The invectives of this city against the census were as violent as to preceding enumerations as to that of 1870. To illustrate how little reason New Orleans has had to complain of the census officials of the United States, and of a summer census, the following facts are cited. During 1847-1859 the city officials took the census three times, and the State officials once. Three of these four enumerations gave a much less numerous population than the United States Census. The fourth, in 1852, reported 8000 or less than six per cent. more than is yielded by a pro rata estimate of the two United States Census of 1850 and 1860; and since

the latter was taken after the four destructive epidemics of 1853-4-5-8, it becomes evident that even the city census of 1852 cannot be claimed as having given any larger population than was indicated by the United States Census. As to the objections to a summer census, the city enumeration of 1847 was in March, and gave 94,526, whilst the United States census indicated 112,000; and the city in 1859 enumerated itself in February 138,277, whilst the United States Census indicated 164,400.

The newspapers have repeatedly urged that the United States Census certainly underrated the population, for such reasons as that an under-estimate was proved by the number of its adult male population, of its voters, of its school children, of its houses, of its superficial extent, of the number of names in its annual Directories, &c. Every one of these reasons has been thoroughly examined, so that I assert without hesitation, that any intelligent man can readily convince himself that they are all unfounded, and that the citizens of New Orleans have thus far failed to advance a single valid proof that the population has not been enumerated by the United States Census with *comparative correctness*. Even if this be disbelieved, it remains true that the student *must* resort to the United States Census, for there alone will he find the data which are necessary, and which are consistent with each other and with the well established laws of population. This last jewel of consistency will be sought for in vain in the *ipse dixit* estimates proclaimed in the newspapers, and at the street corners. The tendency to exaggerate self and its surroundings is natural, but weak; and no intelligent citizen should encourage an over-estimate of population, for this produces two evils—it encourages the present gross abuse of illegal voting, and it causes an under-estimate of the death-rate, and therefore ill appreciation of the true sanitary condition. Recognition of this must precede its correction.

All will admit that great changes in the population must have been caused by the war which robbed New Orleans of a large number of its white males from 20-40 years of age; and by two results of the war, viz., by the comparative cessation of foreign immigration, which diminished especially this same class of the population, and by the greatly increased immigration of Africans. That these well known results are fully shown by a comparison of the census of 1870 with that of 1860, constitutes a strong confirmation of the correctness of the census. Notwithstanding the fact that

in 1870 the population of New Orleans was 22,743 more than in 1860, yet in 1860 there were 11,100 more white males from 20-40 years of age than in 1870. The total white population in 1870 was absolutely less by 3678 than in 1860, and this deficiency was supplied, and the sole addition gained has been, by the great increase of the African race. Of this population New Orleans had 24,074 in 1860, and 50,495 in 1870. In the doubling of this population from 1860 to 1870 by the United States Census is found another striking confirmation of its correctness; for the mortality statistics derived from a totally different source (the city sextons), report that the deaths of this population during 1866-70 doubled the deaths during 1856-60. Those who discredit the census must acknowledge that this is, to say the least, an extraordinary coincidence. Cities seem naturally to attract an excess of African females, and in 1860 there was in New Orleans an excess of this class. The reduction of the white male population would also be naturally attended with a comparative increase of white females. For the various reasons now given, it is not singular that the census, which reported that New Orleans in 1860 had 1537 more males than females, should report in 1870 that it had 10,860 more females than males. Of this 10,860 female excess, 8,065 were from 15-30 years of age; 3663 were white, and 7797 were colored females; and of these 7797 there were 5050 from 15-40 years of age. An estimate based upon the total population and the total deaths under 1 year of age in 1870 yields for the number of births about 6350, and a similar estimate gives 4700 as the number of births in 1860. This great increase in the number of births confirms the census report of a much increased female population of child-bearing age.

Thus the Census shows that, comparing 1870 with 1860 New Orleans slightly lost in its white and doubled its "colored" population; lost most largely in white males from 20-40 years of age, and gained largely in females from 15-40 years of age, and especially in "colored" females.

MORTALITY.

Table No. 4 proves conclusively that, comparing the five years 1866-70 with the five years 1856-60, there has been a decided diminution of the death-rate not only for the deaths from all causes, but also for the non-epidemic deaths. It is believed that this improvement is in part only apparent, and really due to the

diminution of the unacclimated population of foreign birth, and to the excess of the female population, for the death-rate of females has always been less than that of males. Some real improvement is no doubt due to the facts that, the area between the rear of the city and Lake Pontchartrain has been better drained and cultivated; and greater attention has been paid to sanitary matters. To this latter cause, however, no very beneficial effects can be reasonably attributed so long as our privies, gutters and streets, maintain their unenviable condition, and thus continue to poison the most important of all foods, the air.

Mortality by Sexes and Nativities.

Table No. 5 presents all of the data procurable for calculations of the death-rate of these classes. The general difference in non-epidemic years between the death-rate of males and females is illustrated by the death-rates for the two years 1860 and 1870. In 1860 the death-rate for the total population was 43.5, for the males 52.8, for the females 34.1 per 1000; and for 1870 the figures for these three death-rates were respectively, 38.6, 49.4, and 28. In these corresponding results of the census and of the sextons is found another confirmation of the comparative correctness of the census. If yellow fever epidemic years be taken, the difference is still greater between the male and female death-rates. In non-epidemic years the death-rate of the foreign born is somewhat greater than that of the "natives of the United States," but in yellow fever epidemic years the foreign born death-rate is very much greater. These facts prove that the least mortality occurs in native born females.

Mortality by Races.

The mortality of the negro has always exceeded that of the white population, except during yellow fever epidemic years; for this disease attacks the whites more especially. This greater mortality existed in New Orleans and other cities—certainly in Charleston, Washington, Baltimore and New York—before the war. Comparing the five years of freedom 1866-70 with the five years of slavery 1856-60, it will be found that the death-rate remains about the same; but if the comparison be made, for these two periods of time, between the colored and white deaths, then it will be found that the colored death-rate has relatively in-

creased very much. For instance, during the four years 1856-60 (for 1858, a yellow fever epidemic year, is excluded), the colored death-rate was about 44 and the white 39 per thousand; while during the four years 1866-70 (for 1867, a yellow fever epidemic year, is excluded), the colored death-rate was 43 and the white only 30 per thousand. To what causes is this greater mortality of the colored due? The official reports furnish such scanty data on this subject that they are extremely unsatisfactory. However, some of the causes are certainly—the greater ignorance and improvidence of this race, and the greater mortality by Small Pox, Choleraic Diseases, Consumption, Trismus Nascentium, Still-births, and of children under two years of age. The future of this race is involved in the question, whether it is naturally increasing. The reports of the Board of Health for the two years 1872 and 1873 are the only two which throw some light on this question, for these alone report the number of deaths respectively of the white and of the colored children under two years of age. Accepting, for 1872 and 1873, the population in 1870 of these classes, the result yielded is that in 1872 there were 154 deaths in every 1000 of the white children under two years of age, and 298 of the colored children; and in 1873 these same data were 181 of the white and 335 of the colored. Thus it is manifest that, here in New Orleans, the mortality of the colored children under two years of age is enormous, when compared with the mortality of the white children.

Mortality by Ages.

Table No. 5 furnishes all of the data procurable as to the distribution of the population and of the deaths by ages. From these can be readily constructed the numerous and important tables of ratios which are ordinarily compiled for the purpose of comparison.

If the five years 1866-70 be compared with the five years 1856-60, the former show a marked diminution in the mortality of the sum total of the children of both races, and therefore this diminution indicates a very great improvement as to the white children; for, as has been shown, the colored population has more than doubled, and the mortality of its children under two years of age is comparatively enormous.

The estimated births in 1860 are 4500, and the similarly esti-

mated births in 1870 are 6350. In 1860 there were 49,300 females from 15-55 years of age, and in 1870, 60,465. These figures indicate that in 1860 there was one birth to every 36 of the total population, and 95 births to every 1000 females from 15 to 55 years of age; while in 1870 these numbers were respectively 30 and 105. This increase in 1870 of the births to the total population was due to the greatly increased population of females; and the increase of births to the number of females from 15-55 years of age was due to the unusually large number, in 1870, of females from 18-40 years of age. That these different facts are consistent with the Census furnishes additional confirmation of its correctness.

Hygienists concur in regarding the mortality of infants under one year of age, as one of the best tests of the sanitary condition of a place. In 1860 there were about 280 deaths of children under one year of age to every 1000 children born *alive*, and in 1870 this number was reduced to 190. This indicates not only a great improvement, but also a comparatively very favorable sanitary condition.

Another hygienic test is derived from the average duration of life, and one of the factors in this problem, the relative number of centenarians, has been seized upon here in New Orleans to prove its healthfulness. In the article of January 1870 the statistics of longevity were thoroughly examined as to the Census both of 1850, and 1860. These proved conclusively, 1st, that whenever there was an excess of centenarians, there ought certainly to be found a corresponding excess of those from 90 to 100 years of age; and that this was not the case as to New Orleans; 2d, that any comparative superiority of New Orleans was to be found (in the Census) exclusively in its colored population; and 3d, that examination of the Census would prove that throughout the United States the *reported* number of centenarians was excessive in proportion to the ignorance of the population, being greatest among the Indians, who are the most ignorant; and that everywhere the more ignorant colored centenarians exceeded the white, and the more ignorant female the male population. If the Census of 1870 be compared with those of 1850 and 1860, there will be found a confirmation of these views to such extent that further discussion is deemed useless. The census-takers record the age as given by the person questioned; and since every one familiarized by personal experience with the negro race, knows well its ignorance of

dates, and its love for the remarkable, it is my conviction that the Census is entirely unreliable in its records of the remarkable longevity of an ignorant, and wonder-loving population. All other data indicate, that here in New Orleans, the duration of life is much less, and the mortality of the negro race much greater than of the whites; and yet the Census of 1870 reports that the 140,923 white population had only 35 persons from 90 to 100 years of age, and 7 centenarians, whilst the 50,495 colored population had 81 persons from 90 to 100 years of age, and 32 centenarians, and that 50 of the 81, and 21 of the 32 were colored *females*. It may be, that in the United States, Indians enjoy the greatest longevity, that negroes excel the whites, and females the males, but, in my opinion the Census indicates too much of this, and therefore superiorities which are incredible, since they are inconsistent with all other facts.

Mortality by Months and Seasons.

For the detailed facts the student is referred to Table No. 7, and is warned that the reports of the months, as given, are really of weeks, and therefore that some months embrace four, and others five weeks.

If the year be divided, so that one half includes the six months November-April, and the other half the six months May-October, the former will include those months during which the population is at its maximum, and during which the least mortality occurs, except as to the months of May and November, for generally the deaths in November somewhat exceed those in May. Now, if the more populous and healthy half-year, be compared with the less populous and more sickly half-year, the result is that, while the total deaths during the thirteen years 1856-70 were 96,538, there were 39,732 of these in the six months November-April, and 56,806 in the six months May-October. If the three most healthy be compared with the three least healthy months, the result is that there were during said 13 years, 18,002 deaths in the months of January, February and March, and 30,947 in the months of July, August and September. This mournful contrast is largely due to epidemics, but if all the deaths by yellow fever, cholera and small-pox be deducted, even then the sad result is that there were still 25,318 deaths during the three most sickly months to contrast with 16,997 deaths during the three most healthy months.

These facts constitute the most forcible of all arguments for drainage.

Mortality of Special Diseases.

YELLOW FEVER.

From 1796, when the first epidemic of yellow fever occurred, to 1859, a period of sixty-three years, thirty-four epidemics ravaged New Orleans. The records indicate that some cases occurred in every one of the remaining twenty-nine non-epidemic years. No part of these sixty-three years can be compared in fatality with the six years 1853–1858, during which occurred four violent epidemics, 1853–4–5–8; and of these “*the great epidemic*” of 1853 well deserved its title, whilst the epidemic of 1858 caused a mortality never surpassed, except by its notorious predecessor of 1853. During the fifteen years 1859–73, New Orleans has enjoyed an exemption, unprecedented in its history, from yellow fever epidemics; for notwithstanding the fact that there have been cases every one of these years (except perhaps 1861), there has been but one epidemic—that of 1867.

The first cases have been repeatedly traced to the shipping; and in many other years there has been as absolute proof, as a negative proposition admits of, that there was no such connection, and a conspicuous absence of any facts justifying the assignment of the origin of the disease to importation. The preceding indisputable facts are frequently ignored by those who advocate the protective virtues of Quarantine, of an efficient sanitary police, and of carbolic acid and other disinfectants. Some of the facts relative to each one of these three prophylactics will be stated.

Quarantine.—This is based on the theory that yellow fever is imported into New Orleans, that it is communicable from person to person, and therefore that by excluding every case of the disease the city can be protected from its ravages. What are the facts?

The first Quarantine established was maintained only four years, 1821–4, having been abandoned early in 1825 from the general conviction that it had proved worse than useless, for yellow fever was present every year, and to the extent of a very violent epidemic in 1822, and an epidemic in 1824. After thirty years

discontinuance, the Quarantine, which is still enforced, was re-established in March, 1855. Very violent epidemics occurred in 1855, 1858, and 1867, and (excepting 1861) there have been deaths by yellow fever every year of the existence of the present Quarantine.

Thus including the whole time, seventy-eight years, 1796-1873, there have been twenty-three years with Quarantine. During these there have been deaths of yellow fever every year (1861 excepted), and there have been five epidemics of which four (1822-55-58-67) were very violent.

These facts render it manifest, that after twenty-three years' trial, Quarantine has annually failed in its sole object—to keep all cases of yellow fever out of the city. During the military occupation of New Orleans the experiment was tried, whether this failure was attributable to defects of the law, or of its execution; for "by the exercise of absolute and relentless military authority, an *impregnable* system of Quarantine was maintained," and notwithstanding its remorseless rigidity there were cases of yellow fever among the civil population every year. Worse even than this for the advocates of Quarantine, for in 1863 and 1864 it prevailed especially on board the vessels of the United States. Now as to these cases, it is asserted that "the official usages and the armed discipline of the naval fleet in the harbor of New Orleans and upon the river enabled the medical officers to trace to its source every case of yellow fever," that when the disease appeared on one vessel, all other vessels were prevented "by armed surveillance and discipline" from communicating with the infected vessel, and that in spite of all this, the disease could not be traced to importation. In fact there was in 1863 but one vessel (the Spanish man-of-war Pizarro) which even approached the port of New Orleans with yellow fever, and this vessel was kept at the Quarantine, sixty-five miles below the city, thus rendering communication with the "river fleet" impossible; and in 1864, when twenty-five vessels, iron-clad gunboats, &c., in the river and the lake, were attacked with yellow fever, not one infected vessel from a foreign port arrived, even at the Quarantine Stations.

Avoiding discussion of the communicability of yellow fever, and therefore of the theoretical value of Quarantine, the conclusion from the facts given can not be escaped—that Quarantine has entirely failed, even under circumstances very exceptionally favorable to it, to prevent the occurrence of yellow fever, and

has had no practical value in protecting this city. That New Orleans has the capacity to originate yellow fever just as well as Havana or Rio Janeiro, is an assertion which I deem indisputable, and which was often made by the deceased Prof. Stone, whose ability as also his experience in this disease were unequalled in this city. The experience of the United States "river fleet" at New Orleans in 1863 and 1864 confirms many other indications that yellow fever is especially prone to originate in the *holds* of vessels.

An Efficient Sanitary Police.—The topography of New Orleans is such as to render its proper drainage very difficult and expensive; its warm, moist climate, is most favorable to vegetation and to putrefaction; and its houses are constructed without regard to hygiene. Therefore it is not singular that from the earliest records to the present day this city should have been characterized by ill-drained, overflowed and filthy streets, gutters and privies. Purity of atmosphere is impossible under these conditions. Until the last few years, there has not been any sanitary police at all, and no one can claim that it is now or has been at any time efficient, except during the time of the military occupation of the city. From 1862 to 1865 it is asserted that it enjoyed "a sanitary police so efficient," and "sanitary regulations so excellent," that "so clean a city had never before been seen upon the continent." The exemption of New Orleans from epidemics of yellow fever during this time has been so generally and confidently attributed to this cause, that it has gained a place in our medical text-books. This conclusion is certainly hasty and unjustifiable. For, if this exemption in 1862-3-4 was due to this very efficient sanitary police, then to what cause was due the exemption in 1859-60-61, as also in 1865-6-8-9-70-71-72-3, during which eleven years, there has been either no sanitary police, or one notoriously very inefficient? Plainly, these three years immediately preceding, and these eight years succeeding the three years 1862-3-4 invalidate the above hasty conclusion, which cannot be accepted until it has been conclusively proved (as is very far from having been done) that no clean city has ever been attacked by a yellow fever epidemic.

Disinfectants.—A similarly hasty and unjustifiable conclusion, based on the use of carbolic acid during the last two or three years only, has been maintained by some, who apparently forget

the many preceding non-epidemic years before the use of disinfectants. An efficient sanitary police and the proper use of disinfectants deserve the earnest support of every enlightened citizen, and therefore, such hasty conclusions and illogical pretensions in their behalf, as endanger their being brought into popular disrepute, are to be deprecated.

Many seem disposed to forget that, in the history of yellow fever, it has repeatedly abandoned cities which it had afflicted as severely as New Orleans; and that its mysterious departure from these cities was very certainly not due either to Quarantine, or to an efficient sanitary police, or to disinfectants. No advocate of the protective powers of either of these can possibly prove that the exceptional exemption of New Orleans since 1858 is not due to causes similar and as yet inexplicable; and hence true science is forced to acknowledge its ignorance, and to reject all unproved explanations. I can recall but one condition common to New Orleans and to other cities which yellow fever has ceased to ravage, viz., the better drainage, cultivation, and general improvement of the suburbs. It is certain that no explanation can be found in the meteorological records.

In concluding with yellow fever, attention is called to the following three facts: (1) Even contagionists admit that here in New Orleans it certainly fails, as a general rule with few exceptions, to manifest the *catching* characteristics of those diseases which are universally admitted to be contagious or infectious. (2) During the past thirty years, and for all *recorded* years, an epidemic has never prevailed when the first case occurred later than June; except perhaps for the year 1822, as to which the date of the first case is uncertain, but it was certainly "as early as the beginning or middle of July." First cases have occurred in June without being followed by epidemics. (3) In view of the discussions about acclimation, and the liability of children to *undiagnosed* yellow fever, it is worthy of attention that in 1858, 1867, 1870 and 1873, the mortality of children under 10 years of age was notably increased during the months when yellow fever prevailed, and especially as to children over 2 years of age.

The statistics of yellow fever will be found, as complete as the records permit, partly in Table No. 1, but especially in Table No. 2.

CHOLERA.

The statistical facts are, for the limits of this article, sufficiently given in Table No. 3.

SMALL POX.

The annual deaths by this disease since 1856 will be found in Table No. 4. The greatly augmented mortality since 1864 is notable, and due to the great increase at that date of our colored population, which ignorantly neglects, even refuses the protection of vaccination. I have not been able to secure the deaths by races except for the years 1870 and 1873; these are significative, no doubt, of the general facts in all other years.

	Total deaths by Small Pox.	Whites.	Colored.
1870.....	528	110	418
1873.....	505	107	398
	<hr/> 1033	<hr/> 217	<hr/> 816

An estimate from these figures proves that, if equal numbers of the white and colored population be compared, there are ten and a half times more colored than white deaths by small pox.

STILL BIRTHS.

For the 5 years 1856-60 there were about 80 premature and still-births to every 1000 births, and for the 5 years 1866-70 about 85. This increase was probably due to the facts, that the population of colored child-bearing females had very much increased, and that the number of colored still-births is, relative to the population of the two races, much larger than those of the whites. Table No. 6 proves that the ratio of still-births to births is, in the Charity Hospital, 103 to every 1000, and therefore considerably worse than in the balance of the city.

Still-births are excluded from the mortality statistics of many places, and therefore their addition to the deaths in New Orleans augment *comparatively* its death-rate. Yellow fever, cholera and variola are only occasional visitants, and it is desirable to show the death-rate of the city for what may be considered its ordinary and permanent causes. Hence Table No. 4 was constructed, ex-

cluding the above four causes; and it teaches the ordinary and comparative death-rate for the last 18 years—1856-73.

MALARIAL FEVERS.

"Swamp Poison" is a less appreciated but a greater enemy to the health and lives of the inhabitants of New Orleans than yellow fever. During the 18 years 1856-1873 the total deaths by yellow fever were 9459.

During the 16 years 1856-1873 (less 1861 and 1862) there were 5817 deaths by malarial fevers, which would indicate for the 18 years 6543 deaths. But important additions belong to this sum total. 1. Every physician admits that malarial poison is at the bottom of or singularly mixed up with very many diseases not diagnosed malarial; and that very many deaths caused by other diseases are due to the deleterious influence of swamp poison on the general health. 2. Unquestionably many of the deaths *reported* as due to "Congestion" and "Inflammation of Brain," "Meningitis," "Teething," "Infantile Convulsions," "Debility," "Marasmus," &c., were really due to Malaria. 3. Still less questionably were due to this cause a very large proportion of the deaths *reported* as "Fever," "Nervous," "Brain," "Continued," "Typhoid," Fever, &c. The deaths by these "fevers" during the 18 years exceeded 3000.

If due consideration be given the above figures and facts, it will be admitted that during the past 18 years malaria has destroyed fully as many lives as the 9459 dead by yellow fever, and that this estimate of the mortality fails to give a full idea of the deterioration of health and the amount of sickness due to this cause.

The following facts illustrate to some extent the injury thus inflicted. There were in the Charity Hospital during the 5 years 1856-60 and the 5 years 1866-70 a total of 93,068 "deaths and discharges." Of this total number of cases, 26,309 (or somewhat less than one-third of the whole) were cases of malarial fever. During the year ending September 30th, 1870, there were of 747 "sick or wounded" Metropolitan Policemen 236 (or somewhat less than one-third) cases of malaria. During the last six months of 1867, there were of an average daily number of 761 white soldiers at New Orleans 368 cases of malarial fever, which were about one-fourth of the cases of sickness by all diseases, excepting yel-

low fever. Of 313 colored soldiers, there were 155 cases of malaria, which also were about one-fourth of all the sickness except by yellow fever.

The above illustrating examples are only confirmations of all other facts, and convincingly enforce the necessity for drainage.

CONSUMPTION.

It has been often asserted that the annual deaths in New Orleans are notably increased by the deaths of strangers by consumption. If this be so, then an excess of such deaths ought surely to be found at that portion of the year when these strangers are in New Orleans. Any large amount of this mortality must occur, if at all, during the six months November–April; the half year during which the deaths by consumption are ordinarily more numerous, without regard to any additions made by strangers.

The statistical facts prove conclusively that the popular assertion is founded in error, and are as follows. During the 13 years 1856–70 (less 1861 and 1862) there were 9331 deaths by consumption, an annual average of 718. Of the 9331, there died during the six months November–April 4855, and during the six months May–October 4476, which gives an annual average excess of *only* 29, during that half year which is most unfavorable to consumptives, and during which there naturally occurs a preponderance of their mortality. The lesson taught by this aggregate of 13 years is also taught by each of these years separately, and in my opinion places this issue beyond farther discussion.

The average annual deaths during the 5 years 1856–60 were 743, the 3 years 1863–5 were 753, the 5 years 1866–70 were 674, and the 3 years 1871–3 were more than 800. The mortality in 1873 was unusually large, 850, and of these 348 were colored. This indicates an excessive preponderance of colored over white deaths, since the population of the latter is nearly three times larger than that of the colored.

PNEUMONIA.

The statistics of the Charity Hospital indicate that this disease is in New Orleans the most fatal of all of the so-called curable diseases, except Chronic Dysentery and Diarrhoea.

During 10 years (the 5 years 1856-60 and the 5 years 1866-70) there were in the Charity Hospital two deaths in every five cases. If it be supposed that this unfavorable indication may be due in part to errors of diagnosis, and to rectify this there be added to the cases of Pneumonia all those by "Congestion of the Lungs," and "Bronchitis," (the only two diseases likely to have been confounded with Pneumonia,) the result would still remain most unfavorable, viz., one death in every four cases.

ABSCESS OF LIVER.

One hundred and fifty post mortems during two years demonstrated a larger number of Abscesses of the Liver than the official reports of those years gave for the total mortality of the city. Satisfactory data for even approximative estimates are wanting, but from such facts as I have, it is my conviction that there are annually not less than 100 deaths by Abscess of the Liver, instead of the *reported* average for thirteen years of only 10.

ALBUMINURIA AND DROPSY.

The official reports indicate that during the 5 years 1866-70 there was a great increase of the deaths by Albuminuria, and a corresponding diminution of the deaths by Dropsy, when compared with the deaths by the same causes in preceding years. This apparent increase of renal disease is probably due only to a better diagnosis of Dropsy; and it is believed that accurate diagnosis would still farther increase the deaths by Albuminuria, diminishing at the same time those by Dropsy; so that the annual average of 40 deaths during the 5 years 1866-1870 should probably be about 60.

Sunstroke.—The total deaths in "the 13 years" were 285. The number was unusually large in July, 1860, August, 1865, and August, 1866. Sunstrokes were also unusually numerous in August, 1850, and in June, 1854.

Measles.—Total deaths in 13 years 724. It prevailed chiefly in 1857-63-66-69, and in every one of these four years during the six months January-June.

Scarlet Fever.—Total deaths in 13 years 1038. It prevailed

chiefly in 1859-60-64-5-6-70, and especially during the four months April-July.

Roseola prevailed, and deaths by *Inflammation of Throat* were unusually numerous in 1858.

Diphtheria.—Total for 13 years 1201. It prevailed chiefly in 1859-60-3-4-6, and did not manifest any decided preference for particular months or seasons. This disease (as thus named) first appeared in New Orleans in 1853 or 1854.

Hooping-Cough.—Total deaths for 13 years 527. It was most fatal in 1856-60-3-9.

Croup.—Total for 13 years 799. It was especially fatal in 1858. It also prevailed in 1864-6-7.

Dengue prevailed in the fall of 1860, and of 1873. It is said to have first appeared in the United States in 1820, and in New Orleans in 1829 or 1830. As far back as 1848, it does not seem to have prevailed in any year until 1860.

TABLE NO. I.
Historical Table of the Population and Mortality of New Orleans.
 APPRENTITIONS: *Fst.*—estimated and *not official*; *S.*—spontaneous; *M.*—mild; *E.*—*of epidemic*; *V.*—violent; and *T.*—very violent; *Y.*—yellow fever;
C.—colonial; *A.*—ancient; *P.*—unknown; *F.*—United States Census.

YEARS,	TOTAL POPULATION BY U. S. CENSUS,	TOTAL DEATHS IN BOARD OF HEALTH, ETC.	NO. OF OCCURRENCE OF YELLOW FEVER AND CHOLERA.	REMARKS—ESPECIALLY AS TO EVENTS SUPPOSED TO INFLUENCE POPULATION AND MORTALITY.	
				Y. F. S. perhaps.....	Y. F. E. B.
1719	3190	.....	.....	.....	.....
1785	4980	.....	.....	.....	.....
1788	5331	.....	.....	.....	.....
1787-97	(10 yrs.)	4488 AV.	Y. F. S. 1791	.....	.....
1796	.....	.....	First Y. F. epidemic.....	.....	.....
1797	.....	.....	.....	.....	.....
1799 and 1800	8056	.....	.....	.....	.....
1801-4-9	17,342	16 yrs.)	.....	.....	.....
1810	9390 AV.	942 AV.	(80) 3 av.	Y. F. S. 1791	1807-8—F. mburgo.
1811-15	.....	.....	.....	.....	1812-13-14—War.
1816	.....	.....	.....	.....	Estimates of Dr. E. H. Barton for the six years.
1817	.....	.....	.....	.....	Inundation by encasement at Carrollton. Year very healthy.
1818	25,000 est.	11,311	.....	.....	1142 total deaths in five months, viz., August to December, inclusive.
1819	96,000 est.	2190	.....	.....	.....
1816-20	27,176	4,1517 AV.	812	.....	45 deaths in September.
1820	.....	.....	830.5 AV.	.....	Estimates of Dr. E. H. Barton of annual averages.
1822-25	(4 yrs.)	8265 AV.	Y. F. E. 1822-4-5	.....	.....
1829-30	.....	8265 AV.	1827-8-9	.....	Dr. Barton's estimates: Quarantine, 1821-25.
1830	46,310	11767 AV.	1861 AV.	.....	1828—Gormley & Canal dug.
1831-3-4-5	.....	11303 AV.	30.5 AV.	1831-3—Inundation in Aug. to Hampton St. by violent storm from Lake.	1831-3—Year healthy.
1832	.....	11303 AV.	30.5 AV.	1832-3—First appearance of cholera, Oct. 25th.	1832-3—New Basin and
1836-8-9-10	(4 yrs.)	11303 AV.	30.6 AV.	1836-7—Dr. Barton's estimates.	1836-7—[N. O. Canal dug.]
1840	.....	11303 AV.	30.6 AV.	.....	Inundation in October by violent storm from Lake.
1841-5	108,000 est.	27,784	44.5 AV.	1841 V. E. 1842-3 E.	log 10 pop. U. S. G. of City of Orleans, and 2397 for Lafayette.
1849	.....	25,7	25.7	.....	Dr. Barton's average estimates.
.....	.....	.....	.....	.....	For all the years which follow the population and deaths are for N. O. and I. <i>est.</i> , which were not legally consolidated until 1822. N. E.—
.....	.....	.....	.....	.....	Immigration from abroad averaged about 2000 per annum 1815-50, very few arriving in summer and fall. — <i>Portia.</i>

FOR NEW ORLEANS AND LAFAYETTE.

{ Population in 1846, estimated from U. S. C.; deaths estimated from reports of 1700 deaths, for last four months.
Inundation in April to Burgundy st., by violent storm from Lake.

1846	117,000 est.	4500 est.	38-2	160 deaths by Y. F.
1847	120,000 est.	9336	77-8	2804 " "
1848	123,500 est.	10,191	66-3	" "
1849	127,000 est.	10,661	84-	752 " "
1850	130,500 U. S. C.	8086	62,	107 " "
Total for 5 yrs.	618,965	40,774	66,	4693 " "
1851	133,940 684.	7275	54 3	17 deaths by Y. F.
1852	137,400 est.	8033	63.3	456 " "
1853	140,940 est.	15,633	111	7849 " "
1854	144,600 est.	10,890 est.	74-7	2425 " "
1855	148,400 est.	9000 est.	60-7	9670 " "
Total for 5 yrs.	745,200	51,400	72.8	13,417 " "
1856	162,320 est.	5089	37.3	74 deaths by Y. F.
1857	166,15 est.	5281	26.7	200 " "
1858	169,240 est.	11,721	73.1	4855 " "
1859	164,610 est.	16817	41.6	91 " "
1860	187,675 U. S. C.	7341	43.5	15 " "
Total for 5 yrs.	801,820	37,179	46.3	5285 " "
1861	172,000 est.	5772	33 5	No deaths by Y. F.
1862	172,000 est.	6278	37.	2 deaths by Y. F.
1863	172,000 est.	7172	41.7	6 deaths of civil popl'n by Y. F.
1864	173,000 est.	8498	49.	1 death by Y. F.
1865	180,000 est.	7016	30.	11 deaths by Y. F.
Total for 5 yrs.	867,000 est.	34,736	40.	111 deaths by Y. F.
1866	181,000 est.	7754	43.	192 deaths by Y. F.
1867	182,000 est.	10,196	55.4	3107 " "
1868	184,000 est.	3543	29.	5 " "
1869	184,000 est.	6001	32.6	3 " "
1870	191,418 U. S. C.	7381	58.6	367 " "
Total for 5 yrs.	921,418 est.	36,285	39.7	3894 " "
1871	195,000 est.	6153	31.	34 deaths by Y. F.
1872	200,000 est.	6122	131.	6 by C. Inundation from River and Lake.
1873	205,000 est. *	795	39.	120 " " { October (1st week).—Inundation from Lake, extending for a few hours as high as Burgundy street.
1874	2,5,000 est.	....	....	325 " " { Inundation from Lakes, Algiers and Jefferson City annexed to New Orleans in 1870, and deaths in Algiers first reported by Board of Health.

1846	117,000 est.	4500 est.	38-2	160 deaths by Y. F.
1847	120,000 est.	9336	77-8	2804 " "
1848	123,500 est.	10,191	66-3	924 by C.
1849	127,000 est.	10,661	84-	3285 " "
1850	130,500 U. S. C.	8086	62,	1851 " "
Total for 5 yrs.	618,965	40,774	66,	4693 " "
1851	133,940 684.	7275	54 3	17 deaths by Y. F.
1852	137,400 est.	8033	63.3	456 " "
1853	140,940 est.	15,633	111	7849 to 7970 Yellow Fever deaths by this "The Great Epidemic" of 1853.
1854	144,600 est.	10,890 est.	74-7	2425 " "
1855	148,400 est.	9000 est.	60-7	9670 " "
Total for 5 yrs.	745,200	51,400	72.8	13,417 " "
1856	162,320 est.	5089	37.3	74 deaths by Y. F.
1857	166,15 est.	5281	26.7	200 " "
1858	169,240 est.	11,721	73.1	4855 " "
1859	164,610 est.	16817	41.6	91 " "
1860	187,675 U. S. C.	7341	43.5	15 " "
Total for 5 yrs.	801,820	37,179	46.3	5285 " "
1861	172,000 est.	5772	33 5	No deaths by Y. F.
1862	172,000 est.	6278	37.	2 deaths by Y. F.
1863	172,000 est.	7172	41.7	6 deaths of civil popl'n by Y. F.
1864	173,000 est.	8498	49.	1 death by Y. F.
1865	180,000 est.	7016	30.	111 deaths by Y. F.
Total for 5 yrs.	867,000 est.	34,736	40.	192 deaths by Y. F.
1866	181,000 est.	7754	43.	3107 " "
1867	182,000 est.	10,196	55.4	5 " "
1868	184,000 est.	3543	29.	3 " "
1869	184,000 est.	6001	32.6	367 " "
1870	191,418 U. S. C.	7381	58.6	3894 " "
Total for 5 yrs.	921,418 est.	36,285	39.7	34 deaths by Y. F.
1871	195,000 est.	6153	31.	6 by C. Inundation from River and Lake.
1872	200,000 est.	6122	131.	120 " " { October (1st week).—Inundation from Lake, extending for a few hours as high as Burgundy street.
1873	205,000 est. *	795	39.	325 " " { Inundation from Lakes, Algiers and Jefferson City annexed to New Orleans in 1870, and deaths in Algiers first reported by Board of Health.
1874	2,5,000 est.	....	....	41 " " { April.—Extensive inundation of Louisiana, <i>not</i> of New Orleans.

* Soards' New Orleans Directory of 1874 estimates population of 1873 as 230,956, exclusive of Carrollton.

TABLE NO. II.
Table of the Annual and Monthly Mortality by Yellow Fever in New Orleans, 1796-1873.

In the seventy-eight years since the first epidemic of Yellow Fever, viz., 1796-1873, there have been thirty-five epidemics in the following years, viz.: 1796-9; 1800-1-4; 1811-12, 15-18; 1816-18; 1820-2, 18-20; 1823-4-5-6; 1841-4-5-6-7-8; 1850-1-2-3-4-5-6; 1856-1857, 1867. During the last eight years, viz., 1868-1873, there have been two epidemics, viz., 1868 and 1867. A.B.—French embryo 1867-8. War with England 1812-14. Quarantine 1821-24. Quarantine which now exists was established March, 1855.

YEARS.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL FOR YEAR.	REMARKS.
													Mon. of or more not known.	
1817													519	First case June 1st.
1819													823	First 2 cases May 7th and 12th; last, Dec. 9th.
1823													810	80000
1839													1325	1325
1841													1800	
5 epidemics— 1807-9-11-2-3													89	89 (Deaths for New Orleans alone, * 1st case July 20th.)
1855													148	
1866													160	
1867													2804	
1868													872	
1869													732	Deaths for New Orleans alone, 1st case July 25th.
1870													107	" " " 1st death of ste- son May 20th. There were 3 to 4 cases in Charity Hospital in February, 150.
Total for 5 yrs.	1		2		1	4		34					1	17
1851													4695	
1852													456	
1853			1										7490	
1854													3145	
1855													2670	
1856													13,417	
Total for 5 yrs.	1	0	0	0	2	38	1834	6067	3187	934	284	29	41	

* By "for New Orleans alone" is meant that Lafayette is not included

1855	1	.....	14	40	16	4	8	74
1857	2	.....	1	8	82	15	200	200
1858	.....	.....	2	132	2204	224	.....	4815
1859	3	.....	1	140	1137	224	15	91
1860	.....	.....	1	59	28	3	.....	15
Total for 5 yrs.	3	0	0	3	136	2316	23	0
1861	.....	.....	1	1	.....	.....	.....	5235
1862	.....	.....	1	.....	.....	.....	.....	0
								2
1863	.....	.....	.....	.....	2	.....	.....
1864	.....	.....	.....	.....	.....	4	1	
1865	.....	.....	.....	.....	1	.....	1	
Total for 5 yrs.	.....	.....	1	1	3	4	1	11
1866	.....	.....	3	5	32	97	2	192
1867	1	.....	11	235	1637	1072	26	3107
1868	.....	.....	1	1	1	1	.....	5
1869	.....	.....	1	1	.....	2	.....	3
1870	.....	.....	.....	3	231	242	106	587
Total for 5 yrs.	1	.....	4	13	264	1920	1414	33
1871	.....	.....	2	9	22	19	2	3894
1872	.....	.....	1	5	24	7	2	54
1873	.....	.....	3	19	108	79	17	39
Total for 3 yrs.	.....	.....	3	22	122	125	43	226
								319

First case June 28th.

First undisputed case died September 20th.

First case June 20th.

Both cases said to be imported.
Neither case imported; both were "boat-hands from a river-boat." About 100 cases occurred in U. S. "river fleet," and were not part of the civil population.

{ About 200 cases and 57 deaths from the U. S. gunboats and river fleet.

First case August 9th.

First case died June 10th.

First case August 19th.

First case July 4th.

TABLE NO. III.

Annual and Monthly Mortality by Cholera.

This disease first appeared in New Orleans on the 25th, 1832, and M. HALPHEN, D.M.P., of New Orleans, reported to the Paris Academy of Medicine, that in the first twenty days there were over one thousand deaths. It prevailed and visited several months, and sporadically until early in 1833, when it finally disappeared. It reappeared December, 1838, July, 1840, and finally in the spring of 1873.

YEARS.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Month not known.	ANNUAL TOTAL.	REMARKS.	
1832	30	5	20	11	108	131	125	14	5	9	82	23	.....	688	Began Oct. 5th; very violent epidemic.
1833	25	3	2	11	240	436	153	45	116	60	138	87	.....	1319	Prevailed sporadically. Disappeared early in 1836.
1834	21	0	1	1	14	9	14	1	1	6	177	322	32	107	1st case Dec. 11. Max. day Dec. 22, 92 cholera deaths.	
1835	415	75	66	40	311	323	311	7	3	8	107	3176	.....	3176	This total includes 1013 of "cholera Aelatia," and 638 of "cholera" & "cholera morbus."
1836	.....	.....	.....	12	45	101	307	307	311	311	311	311	311	311	1831
Total for 3 Yrs	447	107	107	107	107	107	107	107	107	107	107	107	107	107	5851	
Total for 5 Yrs	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	
Total for 5 Yrs	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	4417
1860-1861	158

"Cholera" reported for 1856, 46 deaths; 1857, 29; 1858, 26, 1859, 27; 1860, 30. Total 5 years 158. In my detailed report Table No. 8, clause 1 with Cholera Morbus.

TABLE NO. IV.
Annual Deaths in New Orleans for the Eighteen Years 1856-73, with the Annual Deaths by Yellow Fever, Cholera, Small Pox,
and the Still and Premature Births; and the Annual Death-Rates with and without the deaths from these four causes.

YEAR.	Total Deaths.	Deaths by				Annual Deaths, including Epidemics and Still-Births.	Annual Death-Rate, excluding deaths by Yellow Fever, Cholera, Sm'l Pox and Still-Births.
		Yellow Fever.	Cholera.	Varioloid and Small Pox.	Premature and Still-Births.		
1856	3689	74	0	2	403	5204	37.3
1857	3581	200	0	103	379	4894	35.7
1858	11,721	4865	0	108	383	6374	73.1
1859	6817	91	0	133	386	6327	44.6
1860	7311	15	0	22	134	6970	43.5
Totals for 5 Years.	31,179	5335	0	278	1890	26,706	46.3
1861	3572	0	0	Unknown.	352	say 5420	38.5
1862	6278	2	0	2	376	say 5940	37.
1863	7172	2	0	0	308	(6861)	41.7
1864	8488	6	0	0	388	7493	40.
1865	7016	1	0	613	401	6001	43.3
Totals for 5 Years.	31,736	11	0	1220	1822	31,780	39.3
1866	7734	192	1291	188	485	5,955	43.
1867	10,096	3107	0.81	17	502	5799	55.4
1868	5343	120	120	14	508	4027	39.
1869	6001	3	4	111	521	5322	32.6
1870	7291	387	3	268	530	5714	38.6
Totals for 5 Years.	36,385	1,384	2011	918	2815	27,067	39.2
1871	6029	54	6	2	516	5481	31.
1872	6142	39	0	29	500	5024	31.
1873	7295	236	112	768	6390	39.	32.1

TABLE NO. V.
Deaths by Sexes, Nativities, Races and Ages, During the 5 Years 1866-7-S-9-70. Also the Annual Averages of such Deaths
During the 3 Years 1863-5, the 5 Years 1856-60, and the 5 Years 1866-70.

The annual average of white deaths for the 4 years 1865-69, excluding from these 5 years the epidemic year 1867, was 3207,
given because in the specifications which follow, the civil population cannot be separated from the "soldiers."

TABLE NO. V.—CONTINUED.

DEATHS BY AGES.						Annual Averages of the				
						5 Years 1866-70		3 Years 1863-6		5 Years 1856-60
	1866	1867	1868	1869	1870					Pop. U. S. C. 1870
Premature and Still-Births.....	485	562	568	521	530	2095	366	378	539	.....
Under 1 Year.....	1939	1304	1910	864	1088	5272	865	1246	1054	3637
1 to 2 Years.....	518	529	364	472	410	2293	692	548	460	4183
2 to 5 Years.....	510	506	289	353	403	2151	743	584	431	15387
5 to 10 Years.....	363	491	152	201	180	1384	441	276	276	19458
										2144
<hr/>										
TOTAL FROM						TOTALS FROM 0 YEARS OF AGE TO OVER 100 YEARS OF AGE.				
0 to 10 Years.....	2912	340	2553	2550	2550	13,705	3106	3672	2750	41,349
10 to 20	416	719	292	251	402	5010	441	306	402	48,819
20 to 30	1069	1984	208	329	1073	5169	745	1308	1092	30,960
30 to 40	991	1441	168	581	929	4303	744	1108	1096	31,310
40 to 50	737	946	488	570	754	4045	634	712	690	28,574
50 to 60	520	634	436	445	430	2524	487	565	6770	18,185
60 to 70	333	333	296	276	318	1567	208	313	2890	12,207
70 to 80	147	163	136	133	136	768	166	155	810	5374
80 to 90	51	70	62	45	64	292	52	52	235	1711
90 to 100	19	12	32	30	34	107	36	19	21	208
Over 100	10	9	15	31	56	56	16	5	11	116
Not Stated	549	357	293	575	507	281	931	931	90	39
										31

TABLE NO. VI.
Still-Births During 21 Years in New Orleans Charity Hospital.

YEARS.	Length of Time.	Total No. of Still-Births.	Total No. of Male Births.	Total No. of Female Births.	No. of Twins.
1866-60	5 Years.	60	570	330	5
1866-70	5 Years.	33	380	194	4
1866-70 (1866-34-5)	5 Years.				
1867-73	3 Years.	127	1077	563	15
	3 Years.	19	284	143	7
Total 1866-73	21 Years.	239	1222	109	31

TABLE NO. VII.

Monthly Report of the Five Years 1866-70, Consolidated and Arranged in Two Series of the more healthy Half Year November-April, and the less healthy Half Year May-October.

N.B.—Each Half Year contains 26 Weeks. Some of the Months have Five, others Four Weeks, which respectively is not known.

TABLE NO. VII—CONTINUED.

MONTHS.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	6 Mos. 12 Mos.		
													Oct.	6 Mos. 12 Mos.	Oct.
Enterico-Colitis.....	12	14	3	4	5	9	47	11	21	9	15	14	91	138	
Disease of Liver.....	38	33	25	19	21	36	172	24	30	35	25	32	32	355	
Disease of Heart and Endocarditis.....	40	68	71	59	58	66	372	58	60	74	60	69	65	386	738
Drowned.....	22	9	11	13	19	33	102	39	44	35	50	32	25	325	367
Total of above Diseases.....	2988	2983	1736	1479	1752	1835	11,023	1980	2141	2047	336	4757	3951	17,052	29,573
" " other	572	612	516	479	583	535	3257	608	565	561	678	651	600	2723	7010
Total of all Diseases.....	3170	3505	2652	1658	2135	2390	14,910	2588	2746	2608	3714	5408	4611	21,675	36,585

TABLE NO. VIII.

Mortality Report of New Orleans for Thirteen Years, 1856-1870.

(Nomenclature and Classification of the Royal College of Physicians, England.)

—o—

Population of New Orleans by U. S. Census of 1860 was 168,675,
 " " " from 1863-5 is estimated at from 170,000 to 180,000.
 " " " by U. S. Census of 1870 was 191,418.

GENERAL SUMMARY IN SEVEN COLUMNS.

Column	1.	Total Mortality for the 3 Years 1863-4-5, i. e., during the military occupation of N. O.
"	2.	5 Years 1856-60 preceding the War.
"	3.	5 Years 1866-70 succeeding the War
"	4&5.	Deaths and Discharges in N. O. Charity Hospital during the 5 Years 1856-60.
"	6&7.	1866-70.

N.B.—"Deaths in the Charity Hospital" are a part of the "Deaths in New Orleans," and are therefore included in the Total of "Deaths in New Orleans."

Class. Order.	DISEASES BY CLASSES AND ORDERS.	Deaths in New Orleans during the			Deaths and Discharges in N. O. Charity Hospital during the		
		3 Yrs 1863-5		5 Yrs 1856-60	5 Yrs 1866-70	5 Yrs 1856-60	
		Deaths	Dis- char'gs	Deaths	Dis- char'gs	Deaths	Dis- char'gs
1	General Diseases A—"Zymotic, apt to be epidemic."	4835	9462	10939	2398	17,574	1936
2	General Diseases B—"Constitutional, apt to be inherited."	3106	4806	4577	1123	6476	899
	LOCAL DISEASES, VIZ.:						
3	Nervous system.....	2792	5822	5176	331	1039	258
2	Eye.....	0	0	0	0	1283	0
3	Ear and Nose.....	1	0	1	41	0	24
4	Circulatory System.....	465	640	929	118	231	166
5	Absorbent System.....	1	10	4	0	41	0
6	Ductless Glands.....	1	0	0	0	2	0
7	Respiratory System.....	1743	2620	2850	472	2251	292
8	Digestive System.....	6074	6544	4608	1607	7033	838
9	Urinary System.....	115	124	261	59	136	94
10	Generative System.....	105	184	194	28	1952	14
11	Locomotory System.....	6	20	21	4	231	22
12	Cellular Tissue.....	0	0	0	5	10	0
13	Cutaneous System.....	28	30	53	26	2697	23
4	Conditions unclassified, i. e., "not necessarily associated with General or Local Diseases."	3696	4624	147	503	167	444
5	Poisons.....	2412	643	170	358	1786	53
6	INJURIES.	.	.	.	.	.	.
6	General Injuries.....	435	1125	810	42	236	30
2	Local Injuries.....	257	328	274	201	4000	109
7	Surgical Operations.....	5	4	5	6	35	2
8	Parasites.....	22	30	12	1	58	0
9	Congenital Malformations.....	5	16	18	0	0	1
10	Conditions unclassifiable—"Unknown," "Not Stated," uncertain, &c.....	635	1028	1260	65	1725	49
	Total Deaths of Citizens and Soldiers.....	23,142					
	Total Deaths of "Soldiers included".....		456				
	Total Deaths of Citizens only.....	*22686	37,133	36,585	6992	49,300	4952
						6992	31,924
							4832
	Total Discharges and Deaths in N. O. Char. Hosp'l for 5 Years 1856-60.....					5 yrs 1866-70	36,776

* 134 should be added for defect of report of 2d week in August, 1863.

TABLE NO. VIII--Continued.

Class, Order.	DISEASES BY CLASSES AND ORDERS.	Deaths in New Orleans during the						Deaths and Discharges in N. O. Charity Hospital during the					
		3 Yrs. 1863-5			5 Yrs. 1866-70			5 Yrs. 1868-90			5 Yrs. 1869-70		
		Deaths	Disches	Disches	Deaths	Disches	Disches	Deaths	Disches	Disches	Deaths	Disches	Disches
1	General Diseases A.—"Zymotic, apt to be epidemic."												
	Small Pox.....	396	262	200	0	23	2	54					
	Varioloid.....	234	16	20	1	32	0	60					
	Measles.....	163	234	125	9	93	3	53					
	Scarlet Fever.....	494	497	177	13	34	2	5					
	Other Exanthemata.....	—	2	3	0	11							
	Leprosy.....	62	393	174	1	11	3	7					
	Hooping Cough.....	107	213	203	5	21	0	3					
	Cholera.....				2011				316	89			
	Gangrene.....	39	71	26	16	6	11	7					
	Erysipels.....	61	31	52	23	209	5	177					
	Puerperal Fever.....	41	50	73	4	6	3	0					
	Pyemia.....	11	11	36	1	6	16	2					
	Typhus Fever.....	29	66	56	23	34	2	0					
	Cerebro-Sp. Meningitis, (or Spotted Fever).....	0	5	27				3					
	Typhoid Cont'd, Enteric, &c., Fever.....	679	362	175	366	687	94	135					
	Brain and Nervous Fever.....	195	95	182									
	Fever.....	115	46	166	0	41	3	9					
	Malarial Fever.....	441	543	704	99	1438	263	11129					
	Malarial Congestive Fever.....	473	819	492	145	63	122	65					
	Pernicious Fever.....	36	16	673	36	15	6	9					
	Yellow Fever.....	9	5242	3694	16752	1484	164	1162					
	Dengue.....		4		9	453	0	13					
	Total of Class 1.....	4935	9462	10939	2393	17554	1336	1243					
2	General Diseases B.—"Constitutional, apt to be inherited"												
	Rheumatism.....	49	81	66	22	2302	1	1412					
	Gout.....	6	3	19	0	5	0	5					
	Syphilis.....	11	43	73	27	2475	25	2565					
	Cancer.....	163	242	385	33	71	71	96					
	Tumors.....	11	11	16		16	6	33					
	Leprosy (Elephantiasis).....	1	4	5	2	6	2	3					
	Scrofula, (Tuberculosis, Rickets, &c.).....	7	73	113	21	175	10	62					
	Pitthisis Pulmonalis (Tuberculous).....	225	3727	3376	940	1057	715	717					
	Hectic Fever.....	0	25	2	4	2							
	[Infect.].....	—	3	2	1	12							
	Purpura and Scurvy.....	1	19	38	6	65	6	47					
	Anæmia, Chlorosis, Leucœmyth, Drposy, Anasarca, (Edema).....	74	4	98	18	184	17	58					
	Total of Class 2.....	2796	4198	4577	1123	6476	399	5242					
3	Local Diseases, Class 3.—with 13 Orders.												
1	Order 1—Dis. of Nervous System.												
	Disease of Brain.....	45	37										
	Congestion of Brain.....	239	647	565	14	35	32	3					
	Softening, Abscess of Brain.....	37	{ 134	140	29	{ 14 }	17	2					
	Inflamm. of Brain.....	22	{ 17	5	3	{ 9	9	3					
	Meningitis.....	152	173	19	15	1	20	4					
	Apoplexia.....	2	14	463	36	12	12	5					
	Sun Stroke.....	29	197	29	36	43	18	34					
	Hydrocephalus.....	66	160	70	6	2							
	Mania, Insanity, Dementia, &c.....	24	24	25	5	90	4	65					
	Diseases of Spine.....	16	46	17	5	9	1	5					
	Paralysis.....	169	113	153	39	171	54	138					
	Tetanus.....	268	315	602	41	6	32	13					
	Tetanus, Narcolepsia.....	341	947	975	5	1	2	0					
	Convulsions.....	—	92	23	13	16	10	2					
	Convulsions Adult.....	—	—										
	Convulsions Infantile.....	—	264	144	—								
	Epilepsy.....	123	95	97	24	36	17	79					
	Hydrophobia.....	3	3	1									
	Hysteria, Chorea, Cataplexy, Par Agit.....	4	6	7	1	69	6	12					
	Neuralgias.....	6	7	3	1	4	1	263					
	Total of Class 3, Order 1.....	2792	522	5176	391	1039	268	724					
2	Eye Diseases.....	0	0	0	0	125	0	638					
3	Diseases of Ear and Nose.....	0	1	0	1	43	0	24					
4	Circulatory System.....	19	0	23	11	11	6	4					
	Pericarditis.....	—	2	12	4	0							
	Hydro-pericardium.....	—	2	12	4	0							

TABLE NO. VIII--Continued.

Class.	Order.	Deaths in New Orleans during the					Deaths and Discharges in N. O. Charity Hospital during the				
		5 Yrs 1856-60		5 Yrs 1866-70		Deaths	Dis- charge's	5 Yrs 1856-60		5 Yrs 1866-70	
		3 Yrs 1863-5	5 Yrs 1856-60	3 Yrs 1865-60	5 Yrs 1866-70			Deaths	Dis- charge's	Deaths	Dis- charge's
	DISEASES BY CLASSES AND ORDERS.										
	Endocarditis	3	.....	22	1	11	4	1	5		
	Disease of Heart, Organic, &c.	407	501	736	73	432	133	127	127		
	Anemia Pect.	7	40	24	2	3	2	3	4		
	Cyanosis	11	20	26	.....	.....	0	1	1		
	Anemias.	17	39	51	14	9	19	17	17		
	Phlebitis	2	5	21	1	5	0	4	4		
	Phleg. Dolens	6	4	1	1	2	0	0	6		
	Varietates	6	.....	1	0	56	0	0	21		
	Gangrena Senilis.	3	7	12	3	1	2	0	0		
	Total of Class 3. Order 4.	465	639	929	113	231	166	139	139		
3 5	Diseases Absorbent System.	1	10	4	0	41	0	29	29		
2 6	Parotitis, Adenitis, &c.	.....	.....	.....	.....	.....	.....	.....	.....
2 6	Diseases of Ductless Glands.	1	0	0	0	2	0	0	0		
3 7	Goutre.	.....	.....	.....	.....	.....	.....	.....	.....
3 7	Diseases of Respiratory System.	2	6	46	3	67	5	33	33		
	Laryngitis, &c.	200	233	166	3	511	1	107	107		
	Croup.	106	154	96	61	795	26	236	236		
	Catarrh.	206	352	307	57	57	31	79	79		
	Bronchitis.	59	68	111	16	3	3	0	0		
	Asthma and Emphysema.	23	1	11	3	3	5	3	3		
	Disease of Lungs.	6	42	28	11	3	5	3	3		
	Abscess, and Gangrene of Lungs.	369	1163	1471	300	501	184	235	235		
	Pneumonia.	73	179	174	13	4	9	1	1		
	Congestion of Lungs.	39	68	47	5	26	4	13	13		
	Hemoptysis.	41	52	52	23	277	16	33	33		
	Pleurisy.	0	11	6	3	3	3	1	1		
	Empyema.	23	67	25	3	4	2	3	3		
	Hydrothorax.	.....	.....	.....	.....	.....	.....	.....	.....
	Total of Class 3, Order 7.	1743	2620	2630	472	2251	292	317	317		
3 8	Dis. of Digestive System.	10	3	16	6	16	1	16	16		
	Diseases of Mouth and Tongue.	265	165	16	3	143	3	10	10		
	Diseases of Throat, Pharynx and Esophag.	462	567	392	3	5	1	1	1		
	Tenitis.	4	3	16	9	456	1	141	141		
	Dyspepsia, Gastrodyno, Enteralgia.	17	11	16	0	5	1	1	1		
	Epsatia.	4	21	13	4	0	0	0	0		
	Haematemesis.	71	179	117	29	206	5	43	43		
	Ulcer, Softg Gangrene of Stomach.	16	24	16	.....	.....	0	0	0		
	Gastritis.	266	341	427	37	42	7	2	2		
	Disease of Bowels.	416	625	366	36	92	13	23	23		
	Gastro Entritis.	.....	.....	.....	.....	.....	.....	.....	.....
	Enteritis.	1442	236	713	3327	.....	.....	.....	.....
	Enteritis Colitis.	236	440	0	0	0	0	0	0		
	Int. and Cong. of Bowels.	151	269	156	40	189	10	149	149		
	Chol. Morbus, Colic, Cramps.	227	517	394	17	2	3	0	0		
	Cholera Infantum.	.....	.....	.....	.....	.....	.....	.....	.....
	Diarrheas.	461	215	.....	.....	90	* 1063	.....	.....
	Diarrheas Acute.	1606	509	40	189	266	211	.....	.....
	Diarrheas Chronic.	1137	303	404	1104	.....	.....	.....	.....
	Dysenteria.	782	324	.....	.....	104	515	.....	.....
	Dysenteric Acute.	270	266	0	212	212	129	129	129		
	Dysenteric Chronic.	.....	.....	0	102	0	49	49	49		
	Hemic.	13	22	23	6	24	7	2	2		
	Hemic Strangled.	2	7	16	3	7	1	1	1		
	Strict., Intussusc., Obstruct. of Intestines	4	11	7	1	261	0	125	125		
	Constipation.	0	0	9	2	121	0	102	102		
	Hemorrhoids.	3	0	4	0	99	0	31	31		
	Fistula, Strict. Prolaps of Anus and Rect'm.	.....	.....	2	254	.....	.....	.....	.....
	Biliary Derangement.	15	28	41	1	0	6	3	3		
	Disease of Liver.	120	246	171	43	104	15	67	67		
	Int. Congst. Enlarg. of Liver.	26	62	42	19	4	11	4	4		
	Abscess of Liver.	31	45	76	35	22	23	27	27		
	Cirrhosis.	29	54	25	27	133	5	50	50		
	Jaundies.	2	7	2	5	26	2	24	24		
	Int. Enlarg. of Spleen and Pancreas.	73	170	116	45	15	13	13	13		
	Peritonitis.	.....	.....	18	115	160	20	33	33		
	Ascites.	.....	.....	.....	.....	.....	.....	.....	.....
	Total of Class 3.—Order 8.	6074	6544	4608	1607	7033	833	2961	2961		
3 9	Dis. of Urinary System.	19	.....	17	.....	0	0	0	0		
	Dis. of Kidneys.	.....	.....	.....	.....	.....	.....	.....	0		

TABLE NO. VIII--Continued.

TABLE NO. VIII--Continued.

Class.	Order.	DISEASES BY CLASSES AND ORDERS.			Deaths in New Orleans during the		Deaths and Discharges in N. O. Charity Hospital during the		
		3 Yrs 1863-5	5 Yrs 1856-60	5 Yrs 1866-70	Deaths	Dis-charge ^s	5 Yrs 1856-60	5 Yrs 1866-70	Dis-charge ^s
		Injuries and Casualties.....	4	290	32	1	0		
		Drowned.....	199	402	327				
		Asphyxia, Suffocation.....	37	43	86				
		Lightning.....	1	2	3				
		Burns and Scalds.....	61	169	154	40	236	25	127
		Exposure, Privation, Want.....	9	15	12	1	0		
		Killed Accidentally.....	73	.....	103				
		Killed or Murdered.....	26	33	24				
		Executed.....	.....	5					
		Suicide.....	22	105	61			2	0
		Infanticide.....	2	17	6				
		Malpractice.....	1	.....	2				
		Total of Class 6, Order 1.....	435	1125	810	42	236	30	127
6	2	Local Injuries.....							
		Wounds—Cont'd, Lac'd, Inc'd, Punctur'd, Pen'tg, Poisoned.....	24	164	66	73	3070	23	812
		Gunshot Wounds.....	175	.....	95	25	160	2	652
		Comprn, Concus, of Brain Fract, Skull and Spine.....	45	146	91	78	60	11	155
		Fractures and Dislocations.....	11	17	22	20	707	44	457
		Other Local Injuries.....	2	1	0	5	3	1	0
		Total of Class 6, Order 2.....	257	328	274	201	4000	109	2101
7		Surgical Operations.....							
		Amputation, Lithotomy.....	3	4	5	6	85	2	63
3		Parasites.....							
		Worms.....	22	30	12	1	13		
		Tenia.....						0	5
		Scabies.....				0	45	0	63
		Total of Class 3	22	30	12	1	58	0	63
9		Congenital Malformations.....	2	3	4			0	1
		Imperf. Anus.....	3	13	14				
		Total of Class 9.....	5	16	18			0	1
10		Unclassifiable Diseases.....							
		"Unknown," "Not Stated," "Nihil" &c.....	635	1028	1260	65	1725	49	1343

